

INVENTOR: McBride et al
TITLE: MEDICAL TESTING AND METHOD

attorney docket: CARDIOBEAT-1

EXHIBIT 8

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Timing of Test Waveforms WLW ~ 2/1/00

The Test waveforms consist of ramping waveforms (sawtooths) on all four channels. All four channels are continuously transmitted at 38.4 Kbaud in the format as described in "Cardiobeat Communications Protocol (Preliminary)". Since 10 bits are transmitted for each byte (8 data bits + START + STOP), the maximum number of bytes per second which may be transmitted at this rate is 3840. We actually transmit 3200 bytes per second. Two bytes are transmitted for each channel and there are 4 channels so the sample rate is 400 samples/second/channel. (4 Channels x 2 bytes/channel x 400 samples/second = 3200 bytes/second)

The Channel 0 data is incremented once for every transmission (400 times per second). Therefore it makes a complete cycle of 256 steps in $256/400$ seconds, or .64 seconds.

The Channel 1 data is incremented every other transmission (200 times per second). There are two transmissions of the same data. Therefore it makes a complete cycle of 256 steps in $256/200$ or 1.28 seconds.

The Channel 2 data is incremented every fourth transmission (100 times per second). There are four transmissions of the same data. Therefore it makes a complete cycle of 256 steps in $256/100$ or 2.56 seconds.

The Channel 3 data is incremented every eighth transmission (50 times per second). There are eight transmissions of the same data. Therefore it makes a complete cycle of 256 steps in $256/50$ or 5.12 seconds.

